CDC

CHRONIC DISEASE PREVENTION

Exemplary State Programs to Prevent Chronic Diseases and Promote Health

affecting Life

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Department of Health and Human Services

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Exemplary State Programs to Prevent Chronic Diseases and Promote Health

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
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Exemplary State Programs to Prevent Chronic Diseases and Promote Health

Chronic diseases—such as heart disease and stroke, cancer, and diabetes—are among the most common, costly, and preventable of all health problems in the United States. These diseases account for 7 of every 10 deaths. As the nation's prevention agency, the Centers for Disease Control and Prevention (CDC) is working with states to implement chronic disease prevention programs that are research-based and proven to work. Strong, well-coordinated state programs supported by essential national elements, such as surveillance and prevention research, form the framework for CDC's efforts to prevent and control chronic diseases.

CDC developed this document to provide states with models of state-based programs that are making a sustained contribution to reducing the burden of chronic diseases by targeting one or more of the following key objectives:

- Reducing risk factors for chronic diseases.
- Expanding the use of screening for early detection of chronic diseases.
- Providing high-quality health education programs.
- Creating healthier communities.

The programs—which range from small community-based projects to reform of state policies—were selected by state chronic disease directors, state prevention program coordinators, and CDC staff. Programs are designated either "Promising Approaches" or "Producing Results." To be selected, all programs had to be based on strong research and to show innovative approaches to research and practice. Those categorized "Producing Results" also have the added distinction of having documented positive outcomes, such as reducing the prevalence of a risk behavior or chronic disease. We hope that this document will help other states to make use of these programs and will result in their more widespread use nationwide.

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Arthritis

CDC Arthritis

CALIFORNIA

SPANISH VERSION OF SELF-HELP COURSE

PUBLIC HEALTH PROBLEM

Arthritis limits the activity of more than 7 million people and is second only to heart disease as a cause of work disability. Among Hispanics, arthritis is the second most common chronic condition and the second leading cause of activity limitation. In California, which has the largest Hispanic population in the United States, approximately 4 million people of all ages have self-reported arthritis.

EVIDENCE THAT PREVENTION WORKS

The Arthritis Self-Help Course, developed at Stanford University, teaches people how to manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%. However, in 1997, the Arthritis Self-Help Course reached less than 1% of Americans with arthritis. More widespread use of this course nationwide would save money and reduce the impact of arthritis.

PROGRAM EXAMPLE

With CDC support, California is enhancing efforts to address arthritis among diverse populations, including its Hispanic population. The California State Health Department is working with the Southern California Chapter of the Arthritis Foundation to provide a Spanish language version of the Arthritis Self-Help Course (SASHC) to farm and transient workers. The SASHC, also developed at Stanford, was designed specifically to meet the needs of Spanish-speaking populations. All materials and training are in Spanish. California is delivering the program to communities with the highest proportions of monolingual Spanish speakers.

IMPLICATIONS

Identifying and implementing strategies to increase the use of this course in Hispanic communities will expand the reach of this program to diverse populations. It can also serve as a model for reaching underserved populations in other states.

CDC Arthritis

FLORIDA

REACHING HISPANICS WITH ARTHRITIS THROUGH THE SELF-HELP COURSE

PUBLIC HEALTH PROBLEM

Arthritis and other rheumatic conditions affect 43 million Americans—nearly one of every six people in the United States. Over 7 million people are limited in everyday activities because of arthritis. Among Hispanics, arthritis is the second most common chronic condition and the second leading cause of activity limitation.

EVIDENCE THAT PREVENTION WORKS

The Arthritis Self-Help Course, developed at Stanford University, teaches people how to manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%. However, in 1997, it reached less than 1% of people with arthritis. More widespread use of this course nationwide would save money and reduce the impact of arthritis.

PROGRAM EXAMPLE

With CDC support, the Florida Department of Health's Arthritis Prevention and Education Program is working with a community-based organization to implement the Spanish version of the Self-Help Course—also developed at Stanford—and to increase physical activity among Hispanics with arthritis. As of September 2001, the program had

- Conducted a needs assessment of Hispanic persons with arthritis.
- Built a local community arthritis coalition of over 30 groups.
- Recruited and trained eight Spanish-speaking instructors for the Spanish-version courses.
- Almost completed delivery of the first two Spanish-version courses and scheduled four more courses.
- Made plans for evaluating participants' satisfaction with and benefits from the course.

IMPLICATIONS

The Arthritis Self-Help Course not only reduces arthritis pain but also reduces health care costs and improves quality of life. Identifying and implementing strategies to increase the use of this course in Hispanic communities will allow programs to reach diverse populations.

CDC Arthritis

GEORGIA

PHYSICAL ACTIVITY THROUGH WALKING FOR PEOPLE WITH ARTHRITIS

PUBLIC HEALTH PROBLEM

Arthritis affects one out of every three adults in Georgia, or approximately 1.8 million people. Of these 1.8 million, 34% report less physical activity than the general population.

EVIDENCE THAT PREVENTION WORKS

A growing body of literature suggests that exercise has positive health benefits for people with arthritis. CDC's Arthritis Program is supporting research to examine the role of physical activity in lessening the effects of arthritis. The Surgeon General's report on physical activity and health brings together state of the art research on the benefits of physical activity. According to this report, "Physical activity is essential for maintaining the health of joints and appears to be beneficial for controlling symptoms of osteoarthritis and rheumatoid arthritis."

PROGRAM EXAMPLE

The Georgia Division of Public Health is piloting a physical activity program for persons with arthritis in Georgia's West Central Health District. Three counties, representing urban, small town, and rural populations, are participating. The program is led by community leaders including representatives of the Division of Public Health, the Arthritis Foundation, and the Area Agency on Aging. Teams of 10 people with arthritis participate in 10 weeks of physical activity such as walking, gardening, swimming, and ballroom dancing. Team captains hold group activities for their teams and provide educational materials and telephone encouragement. Participants keep logs of their physical activity each week.

IMPLICATIONS

This pilot physical activity program will provide information on how to implement community-based physical activity programs in urban, small town, and rural settings. This information will help Georgia expand its physical activity program as well as help other states increase the level of physical activity among their residents. These efforts should reduce the proportion of adults who experience limitations in activity due to arthritis.

Arthritis

UTAH

INCREASING PHYSICIAN REFERRALS TO THE ARTHRITIS SELF-HELP COURSE

PUBLIC HEALTH PROBLEM

The Utah Arthritis Program conducted social marketing research to develop effective messages and practical ways to reach women with arthritis and encourage them to participate in the Arthritis Self-Help Course. Utah found that none of the women with arthritis who participated in the research had been referred to self-help courses by their medical providers, even though self-help courses can significantly reduce arthritis pain. This lack of referral appears to be widespread: in 1997, the Arthritis Self-Help Course reached less than 1% of people with arthritis nationwide.

EVIDENCE THAT PREVENTION WORKS

The Arthritis Self-Help Course, developed at Stanford University, teaches people how to better manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%.

PROGRAM EXAMPLE

To decrease the impact of arthritis and improve the quality of life among people with arthritis, CDC supports state health departments to help develop and improve state-based programs. With CDC support, the Utah Department of Health is implementing a program to identify factors that influence physicians' referrals to arthritis self-help programs. Physicians' knowledge, attitudes, beliefs, and practices about referring patients to arthritis self-help programs and other educational resources for arthritis are being assessed. This research includes physician focus groups as well as a survey of physicians.

IMPLICATIONS

The Arthritis Self-Help Course is a cost-saving intervention that reduces arthritis pain and physician visits. Identifying the reasons physicians do not refer patients to this course will allow programs to develop interventions to increase physician referrals. More widespread use of the Arthritis Self-Help Course nationwide would save money and reduce the impact of arthritis.

Cancer

CDC Cancer

CALIFORNIA

CALIFORNIA CANCER REGISTRY

PUBLIC HEALTH PROBLEM

Lung cancer is the leading cause of cancer-related deaths in California. The American Cancer Society estimates that this year in California about 13,200 people will die of lung cancer and about 14,300 new lung cancer cases will be diagnosed. At least 85% of lung cancer cases are caused by cigarette smoking.

EVIDENCE THAT PREVENTION WORKS

Aggressive and comprehensive tobacco control programs in California, Florida, and Massachusetts have produced substantial declines in rates of cigarette smoking. Interventions to reduce smoking rates have been shown to reduce the incidence of lung cancer.

PROGRAM EXAMPLE

California's tobacco control initiative was adopted in 1988. To characterize trends in lung cancer incidence in California since the state adopted this initiative, data from the statewide California Cancer Registry, which is part of CDC's Cancer Registries Program, were compared with data from the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program for 1988–1997. The participating SEER programs and the California Cancer Registry are all certified by the North American Association of Central Cancer Registries for having high-quality data. SEER data used in the analysis were from cancer registries in five states and three metropolitan areas that did not include California. According to the California Cancer Registry, rates of lung and bronchus cancer in California decreased 14% from 1988 through 1997, whereas these rates declined only 2.7% in the SEER regions.

IMPLICATIONS

The results of this study suggest that a comprehensive tobacco prevention and education program may help to reduce rates of lung and bronchus cancer. High-quality, population-based cancer data, provided by statewide central cancer registries such as California's, make it possible to evaluate these types of interventions.

Cancer

Connecticut

Early Detection Program

Public Health Problem

An estimated 2,500 invasive breast cancers and 100 cervical cancers are expected to occur among women in Connecticut during 2001, and approximately 400 Connecticut women will die of breast cancer this year.

Evidence That Prevention Works

Interpersonal strategies—those that involve communication with a family member or a person in one's social network—are effective in promoting early detection and control of breast and cervical cancers. Using peers to encourage women to be screened for cancer enlists these interpersonal strategies, may eliminate language barriers, and can help a program better address cultural and community factors.

Program Example

The CDC-funded Connecticut Breast and Cervical Cancer Early Detection Program emphasizes providing screening services to the state's uninsured or underinsured older women who are of racial and ethnic minority groups. Since October 1, 1995, more than 6,400 (or 40%) of the state's uninsured, low-income women have received services through this program. Nearly 18% of these women are African American, and 20% are Hispanic. At enrollment, women receiving program services are asked how they heard about the program; 24% of these women said they heard about it through outreach educators, who are members of the community employed by the Connecticut program to recruit women for screening services.

Implications

Without this program and the hard work of the outreach educators it employs, these Connecticut women may not have received potentially life-saving early detection services.

CDC

Cancer

ILLINOIS

USING ILLINOIS CANCER REGISTRY DATA

PUBLIC HEALTH PROBLEM

Each year in Illinois, breast cancer kills 2,000 women. Women in racial and ethnic minorities and low-income groups are more likely than other women to die of breast cancer. Many cancer deaths could be avoided by making cancer screening and treatment services available to all women, especially those in racial and ethnic minority groups.

EVIDENCE THAT PREVENTION WORKS

When breast cancer is diagnosed at a local stage, 96% of women are still alive 5 years later. The 5-year survival rate decreases to 21% when the disease is diagnosed after spreading to other sites. Timely mammography screening could prevent 15%–30% of all deaths from breast cancer among women older than age 40.

PROGRAM EXAMPLE

Two CDC-supported state health programs, the Illinois Breast and Cervical Cancer Program and the Illinois Cancer Registry, collaborated to identify the stage at which a woman's breast cancer is diagnosed. The Breast and Cervical Cancer Program provides screening to low-income women with little or no health insurance and raises awareness about the importance of early detection. Data from the Illinois Cancer Registry for 1988–1997 were used to compare the stage at which breast cancer was diagnosed in counties participating in the program with the stage at diagnosis in counties not participating. The statewide evaluation indicated a significant shift over time in the stage of disease at diagnosis. In counties participating in the program, the percentage of breast cancer cases diagnosed at the in situ stage—when it has not spread to other sites—increased 18% from 1988 through 1997. Such early detection can result in more lives saved because treatment is more likely to be successful. Counties not participating in the program did not experience such an increase. In counties that had participated in the program for the longest time (at least 5 years), the percentage of breast cancer cases diagnosed at the in situ stage increased 110%. This statewide program evaluation illustrates the benefit of long-term screening efforts and the pivotal role of cancer registry data in evaluating the true impact of screening programs.

IMPLICATIONS

Illinois public health officials expect that breast cancer deaths will be significantly reduced because of the increase in early detection of the disease facilitated through the collaborative efforts of the state cancer registry and the screening program.

CDC

Cancer

KENTUCKY

EARLY DETECTION PROGRAM

PUBLIC HEALTH PROBLEM

Each year in Kentucky, breast cancer affects about 3,000 women and kills about 600. Women in racial and ethnic minorities and low-income groups are more likely to die of breast cancer, and many of these cancer deaths could be avoided by making cancer screening services available to all women at risk.

EVIDENCE THAT PREVENTION WORKS

When breast cancer is diagnosed at a local stage, 96% of women are still alive 5 years later. The 5-year survival rate decreases to 21% when the disease is diagnosed after spreading to other sites. Timely mammography screening could prevent approximately 15%–30% of all deaths from breast cancer among women older than age 40.

PROGRAM EXAMPLE

Kentucky was able to save thousands of lives and millions of health care dollars with its cancer registry. In the early 1990s, 35% of Kentucky women diagnosed with breast cancer had advanced (late-stage) disease, which has a low survival rate. Registry data were used to identify areas of the state that had high rates of late-stage and low rates of early-stage breast cancer. In 1994, Kentucky received CDC funding to enhance its cancer registry and breast and cervical cancer prevention activities. This funding allowed the state to expand mammography outreach activities. The percentage of women who had late-stage breast cancer at diagnosis had declined to 30% by 1996 and to 29% by 1999. This downward trend underscores the health benefit that can be achieved through screening.

IMPLICATIONS

The use of high-quality cancer registry data has been pivotal in identifying at-risk populations, designing programs, and evaluating the true impact of screening programs. In addition to the potential lives saved by detecting these cancers earlier, the state estimates that this expanded screening program saved more than $4.7 million in health care expenditures. This example illustrates the importance of registry data in identifying when and where screening efforts should be enhanced.

NEW YORK

CANCER SURVEILLANCE IMPROVEMENT INITIATIVE

PUBLIC HEALTH PROBLEM

This year in New York State, more than 36,000 people will die of cancer and an estimated 83,000 new cancer cases will be diagnosed. Citizens and community groups throughout the state are concerned about cancer in their neighborhoods and communities. In 1999,

- The state health department received 182 requests for special studies and information about cancer in specific neighborhoods.
- More than 75% of those requesting information expressed concern about breast cancer.

EVIDENCE THAT SURVEILLANCE IS EFFECTIVE

Information derived from cancer surveillance—such as through statewide, population-based cancer registries—enables public health professionals to better understand and address the cancer problem. This information helps them to identify cancer patterns among various populations and to determine whether screening and other prevention measures are making a difference.

PROGRAM EXAMPLE

CDC supports cancer registries in 45 states, including New York, as well as in three territories and the District of Columbia. New York's Cancer Surveillance Improvement Initiative improves cancer monitoring statewide while providing the public with information about cancer case distribution and cancer risk factors. The initiative's Web site—which incorporates maps to show cancer incidence by county and ZIP code, health education messages, and disease prevention and early detection messages—received 170,000 hits when first launched. This huge response reflects the magnitude of public interest in cancer issues. Consequently, the public has become more aware of the initiative and its benefits, such as improving the cancer registry and the data it receives, increasing access to local cancer data, and creating a more targeted and scientifically informed approach to cancer surveillance investigations. The initiative has also reinforced the value of cancer screening, including mammography, among women in the state of New York.

IMPLICATIONS

New York's Cancer Surveillance Improvement Initiative is a new and effective means of providing the public with information on cancer and cancer risk factors and educating citizens about cancer prevention and screening. The initiative—including its Web site—can serve as a model for other states on effective ways to publish and use data collected through the state's central cancer registry.

VERMONT

BETH'S STORY

PUBLIC HEALTH PROBLEM

Estimated new cases of breast cancer in Vermont rose from 300 in 1999 to 400 in 2001, while the estimated number of deaths from breast cancer stayed the same—100 in 1999 and in 2001.

EVIDENCE THAT PREVENTION SAVES LIVES

Studies have shown that early detection of breast and cervical cancers and a comprehensive program of follow-up, including case management and community collaboration, saves lives. When breast cancer is diagnosed at a local stage, 96% of women are still alive 5 years later. The 5-year survival rate decreases to 21% when the disease is diagnosed after spreading to other sites. Timely mammography screening could prevent 15%–30% of all deaths from breast cancer among women older than age 40.

PROGRAM EXAMPLE

Ladies First is a CDC-supported breast and cervical cancer screening program in Vermont that provides free mammograms for uninsured women. Beth is a Vermont woman who got a mammogram every year until her husband David lost his job. However, without the health benefits that David's job had provided, Beth waited 5 years before having another mammogram. She might never have had another one if she hadn't found out about Ladies First. Beth's mammogram showed a lesion that turned out to be cancer. The good news is that doctors caught Beth's cancer early enough to treat it successfully. With other help from Ladies First, the cancer treatment was not a financial burden for Beth or her husband. Beth credits Ladies First with saving her life.

IMPLICATIONS

Without this program and the hard work of the outreach educators it employs, Beth and other women would have difficulty obtaining potentially life-saving early detection services.

Diabetes

Diabetes

NEW YORK

CENTERS OF EXCELLENCE

PUBLIC HEALTH PROBLEM

Nearly 5% of New York state's adult population has diagnosed diabetes, and more than 285,000 hospitalizations in New York each year are diabetes-related. Over 6,500 of these hospitalizations result in lower-extremity amputations.

EVIDENCE THAT PREVENTION WORKS

Results from several studies have demonstrated that by improving their nutrition, increasing their physical activity, controlling their blood glucose levels, and improving their access to proper preventive care, diabetes patients can prevent or delay the progression of devastating diabetes complications (e.g., diabetes-related lower-extremity amputations, kidney disease, and blindness).

PROGRAM EXAMPLE

CDC applies these results in states and communities throughout the country by working with state health departments and other partners. The CDC-funded New York Diabetes Control Program collaborates with 14 regional community coalitions and 3 university-based Centers of Excellence (State University of New York/Upstate Medical University in Syracuse, Mount Sinai Medical Center/East Harlem in New York City, and Columbia-Presbyterian Hospital/Naomi Berrie in New York City) to improve diabetes care. The Centers of Excellence work with peer review organizations, health centers, hospitals, and community organizations to develop educational initiatives and promote collaboration among health care providers to improve diabetes services and access to care. The centers also develop methods to overcome socioeconomic, cultural, and language barriers to services. In 2 years, the community- and provider-focused interventions have reduced hospitalization rates by 35% and lower-extremity amputation rates by 39%.

IMPLICATIONS

The Centers of Excellence demonstrate that focused collaborations between health systems and community-based diabetes partners can significantly improve diabetes care outcomes. This statewide effort also demonstrates the potential of comprehensive diabetes programs to spearhead a collaborative approach to diabetes control.

Diabetes

North Carolina

Project DIRECT

Public Health Problem

Among African Americans, nearly 20% of men and 30% of women aged 50 and older have diabetes, and diabetes death rates are 27% higher among African Americans than whites. Compared with white Americans, African Americans are

- Almost 2 times more likely to have diabetes.
- More likely to develop diabetes complications and to have greater disability from complications.
- More likely to die of diabetes.

Evidence That Prevention Works

Research such as the National Institutes of Health's Diabetes Control and Complications Trial confirms that diabetes patients can drastically reduce their risk for serious complications by controlling their blood glucose levels, reducing their risk factors for complications, and detecting complications early. In fact, up to 90% of cases of diabetes-related blindness and over half of diabetes-related lower-extremity amputations and kidney failures are preventable.

Program Example

CDC applies this research to prevent complications and improve the health of people with diabetes in states and communities throughout the nation. Project DIRECT (Diabetes Intervention Reaching and Educating Communities Together) focuses on the African American community in southeast Raleigh, North Carolina. Project DIRECT offers a comprehensive approach to prevention. Its goals are

- To reduce risk factors for diabetes.
- To improve the diagnosis of diabetes and its complications.
- To improve the quality of care and self-management practices of people with diabetes.

In its first year, Project DIRECT increased the incidence of foot care counseling of diabetes patients from approximately 20% to 50%. Chart audits in subsequent years have also documented sustained improvements in home blood glucose monitoring, diabetes education, ophthalmology referrals, and vascular exams.

Implications

Project DIRECT demonstrates that significant changes in the preventive care practices of medical providers can reduce the devastating complications of diabetes.

UTAH

HEALTH PLAN PARTNERSHIP

PUBLIC HEALTH PROBLEM

Utah residents with diabetes are not receiving the standards of care recommended by the American Diabetes Association. Data collected from health plans in Utah in 1998 revealed that although 74% of the health plan members with diabetes had had at least one hemoglobin test in the past year, only 22% were at recommended levels. Additional data showed that only 44% had had their cholesterol tested, only 36% had had an eye exam, and only 31% had had a test for kidney function in the past year.

EVIDENCE THAT PREVENTION WORKS

Results from the Diabetes Control and Complications Trial and the United Kingdom Prospective Diabetes Study showed that intensive therapy that lowered hemoglobin and blood pressure to acceptable levels could significantly reduce diabetes complications. Other studies have shown that regular eye exams and tests for kidney function can prevent or delay diabetic eye disease and kidney failure.

PROGRAM EXAMPLE

CDC works with state health departments and other partners to apply these results throughout the country. To improve standards of care for Utah residents with diabetes, the CDC-funded Utah Diabetes Control Program convened a group of nine health plans to develop, implement, and evaluate care management strategies. Before initiating any interventions, the program conducted social marketing research to assess barriers to care and identify effective interventions. In 2000, a program to increase the percentage of people with diabetes having eye exams was launched. The health plans matched members with diabetes to their most likely primary care provider and determined if the members had received the recommended standards of care. This information was sent to each member's provider, along with a copy of the American Diabetes Association's Clinical Practice Recommendations. Members also received a personal profile of the standards of care with their status for each, a description of the tests recommended and their frequency, a description of their health plan's reimbursement policy for each test, and a description of an incentive for eye exams (a 60-minute telephone calling card for those who received an eye exam in 2000). The provider and member interventions are being evaluated.

IMPLICATIONS

An estimated 90% of the cases of diabetes-related blindness could be prevented if all people with diabetes received regular eye exams. In Utah alone, this could prevent thousands of cases of blindness and save millions of dollars in health care costs.

CDC

Diabetes

WASHINGTON

IMPROVING DIABETES CARE IN COMMUNITY HEALTH CENTERS

PUBLIC HEALTH PROBLEM

Diabetes performance measures within community health centers (CHCs) need to be improved to ensure that CHC clients receive critical diabetes care that can prevent devastating diabetes complications. CHCs serve 12 million people nationwide, of whom 85% are of low income and 65% of racial and ethnic minority groups.

EVIDENCE THAT PREVENTION WORKS

Results from several studies have shown that improving nutrition, increasing physical activity, controlling blood glucose levels, and improving access to proper preventive care can prevent or delay the progression of diabetes complications (e.g., blindness, kidney failure, lower-extremity amputations).

PROGRAM EXAMPLE

CDC applies these results to prevent complications and improve the health of people with diabetes throughout the country. The National Diabetes Collaborative, a partnership of the Bureau of Primary Health Care, the Institute for Healthcare Improvement, and CDC, was launched in January 1999 with a mission to eliminate racial and ethnic disparities in access to diabetes care, to provide everyone with access to care, and to provide two critical glycated hemoglobin tests annually for people with diabetes. Over 200 CHCs and 35 state diabetes control programs (DCPs) have been trained on collaborative improvement models. Results produced by the Collaborative in its first year include a threefold increase in the number of people with diabetes who receive two glycated hemoglobin tests annually.

The Washington DCP provides technical assistance, resources, and linkages to help CHCs improve diabetes care. The Washington Diabetes Collaborative developed and provides technical support for the Diabetes Electronic Measurement System, a tracking and charting system for use in CHCs, and provides competitive grants to community clinics to implement chronic care models. The Diabetes Electronic Measurement System has been implemented in nearly 200 community care clinics, reaching a population of 12,000 people with diabetes. Washington is now implementing a statewide program based on the national model.

IMPLICATIONS

By modeling the National Diabetes Collaborative, Washington is producing results and demonstrating that state DCPs can play a critical role in improving diabetes care for the largely low-income Americans who access health care through community health centers.

Healthy Mothers
Healthy Babies

Healthy Mothers
Healthy Babies

ALABAMA

REDUCING SMOKING DURING PREGNANCY

PUBLIC HEALTH PROBLEM

Data from Alabama's CDC-supported Pregnancy Risk Assessment Monitoring System (PRAMS) showed that in 1995, 28% of mothers smoked shortly before pregnancy, 16% during pregnancy, and 24% shortly after pregnancy. The data also showed that smoking rates were higher among pregnant women receiving Medicaid than among pregnant women not receiving Medicaid.

EVIDENCE THAT PREVENTION WORKS

Research has indicated that infants of mothers who smoke during pregnancy have a higher risk for low birth weight and infant mortality.

PROGRAM EXAMPLE

CDC initiated PRAMS, a state-based monitoring system, in response to the slowing decline in infant mortality and to rates of low birth weight that had changed little in the previous 20 years. PRAMS collects data from a representative sample of new mothers about their behaviors and experiences during and immediately after pregnancy. Using Alabama's PRAMS data, the Alabama Department of Public Health and the University of Alabama–Birmingham established the Smoking Cessation-Reduction in Pregnancy Trial (SCRIPT), a pilot program to reduce smoking among pregnant women who receive prenatal care in county health department clinics in eight Alabama counties. SCRIPT educates women about the risks of smoking during pregnancy through a self-help guide, a video, and the guidance of trained staff members. Evaluation results showed that participants were more than twice as likely to quit smoking as those not participating in the program. The success of the SCRIPT program has resulted in the formation of the Alabama Tobacco Free Families Program, an expansion of SCRIPT funded by the National Cancer Institute to raise public awareness about the risks of tobacco to mothers and babies through community and professional organizations and the mass media. PRAMS data are being used to monitor smoking rates among pregnant women in the state and serve as a resource to organizations participating in the Alabama Tobacco Free Families Program.

IMPLICATIONS

PRAMS data were instrumental in developing and establishing both SCRIPT and the Alabama Tobacco Free Families Program. By monitoring maternal and infant health and demonstrating results for programs like these, PRAMS is helping chart the course of maternal and infant health in our country.

Healthy Mothers
Healthy Babies

FLORIDA

BACK TO SLEEP: SAVING THE LIVES OF INFANTS IN FLORIDA

PUBLIC HEALTH PROBLEM

For more than a decade, CDC has worked with state and local health departments and others to detect deaths and other health problems among infants and pregnant women, determine the causes of these problems, and develop solutions. A critical part of this effort is CDC's state-based Pregnancy Risk Assessment Monitoring System (PRAMS), which collects data on the health and health-related behaviors of pregnant women and infants. In Florida in 1996, an unusually large number of babies were dying of sudden infant death syndrome (SIDS). PRAMS data indicated that only 25% of infants in Florida (28% of white and 15% of African American infants) were put to sleep on their backs in 1996.

EVIDENCE THAT PREVENTION WORKS

Strong scientific evidence indicates that putting infants to sleep on their back or side rather than on their stomach decreases their risk of dying of SIDS.

PROGRAM EXAMPLE

In response to the PRAMS data, the Northeastern Florida Healthy Start Coalition, through its Community Action Group, launched a "Back to Sleep" campaign in their region in 1997 to reduce the number of infants dying of SIDS. Packets of educational materials about placing infants on their backs to sleep were distributed to day care centers and to training programs for nurses. Activities aimed at parents included distributing baby t-shirts with the "Back to Sleep" logo on the back. Efforts targeting area zip codes where the risk for SIDS was highest resulted in a 19% increase in the number of infants who were placed on their backs to sleep. Following this campaign, 1998 PRAMS data showed that 56% of infants (64% of white and 43% of African American infants) were placed on their backs in northeastern Florida, the area targeted, compared with 25% before the campaign and 37% of infants statewide. In addition, the SIDS death rate in the region decreased from 1.2 deaths per 1,000 live births in 1997 to 0.74 deaths per 1,000 in 1998.

IMPLICATIONS

The Northeastern Florida Healthy Start Coalition continues to use PRAMS data to monitor sleep position. The coalition is now focusing its education efforts on African American parents to reduce racial disparities in SIDS rates. By detecting health problems among mothers and babies and by demonstrating results for programs like these, PRAMS is helping chart the course of maternal and infant health in our country.

Healthy Youth

CDC Healthy Youth

MAINE

PREVENTING TOBACCO USE

PUBLIC HEALTH PROBLEM

In 1996 Maine had the highest tobacco addiction rates in the nation for young people aged 18–30 and one of the highest smoking rates for those aged 14–18. Four of 10 Maine high school students in grades 10–12 currently smoke. Although tobacco use is the leading cause of preventable death in the United States, most young people underestimate the health consequences. If current smoking rates in Maine continue, tobacco use will eventually claim the lives of almost 31,000 people who are children in Maine today.

EVIDENCE THAT PREVENTION WORKS

The Life Skills Training Program was designed to help adolescents develop a wide range of personal and social skills. Twelve major evaluation studies have shown that the Life Skills Training Program can reduce cigarette smoking by up to 87% and use of alcohol and other drugs by up to 80%.

PROGRAM EXAMPLE

CDC has established a national framework to support coordinated school health programs in states. As part of this effort, teachers in all middle schools in Maine were offered training and materials for the Life Skills Training curriculum. Surveys show that smoking among high school students in Maine has decreased more than 20% since the Life Skills Training Program was established in 1997. Increases in the state tobacco excise tax and the introduction of community-based tobacco control programs also contributed to this decrease in smoking rates.

IMPLICATIONS

Quality staff development greatly improves the effectiveness of programs to reduce tobacco use among young people. School-based programs to prevent tobacco use should be part of a coordinated school health program for students from grades K through 12 and should be reinforced by community-wide efforts to prevent tobacco use and addiction.

Healthy Youth

RHODE ISLAND

NUTRITION EDUCATION

PUBLIC HEALTH PROBLEM

More than 60% of young people eat too much fat, and less than 20% eat the recommended five or more servings of fruits and vegetables each day. Poor eating habits and inactivity are the root causes of overweight and obesity, which contribute to the development of many chronic diseases, including heart disease, diabetes, and some types of cancer. The percentage of young people who are overweight has more than doubled in the last 30 years. This increase has been paralleled by increased risk for chronic diseases among young people. In particular, type 2 diabetes, once considered a disease of middle-aged and older adults, has become increasingly common among teenagers. Heart disease has also begun to appear among young people.

EVIDENCE THAT PREVENTION WORKS

School-based nutrition-education programs can improve the eating habits of young people. Students who receive more lessons on nutrition have been shown to improve their eating habits more than students with fewer lessons. Additionally, schools whose food-service managers receive nutrition training are more likely to select and prepare healthy meals.

PROGRAM EXAMPLE

As part of its CDC-supported coordinated school health program, the Rhode Island Department of Education has partnered with Kids First, a community-based agency dedicated to improving the health and education of children, to provide nutrition education in schools throughout the state. From May 1998 through September 2000, Rhode Island provided nutrition services and programs to more than 40,000 children and their parents, 2,100 teachers, and 700 school food-service staff in more than 220 schools.

IMPLICATIONS

Through its nutrition-education program, Rhode Island is helping its young people establish healthy eating habits at an early age and thus reduce their risk for devastating chronic diseases both now and later in life. School-based nutrition-education programs should be part of coordinated school health programs and reach students from preschool through grade 12.

CDC Healthy Youth

SOUTH DAKOTA

HIV PREVENTION

PUBLIC HEALTH PROBLEM

Half of all new HIV infections each year occur among young people aged 13–24. Among those most at risk are American Indian youth. In a 1997 survey of students in high schools funded by the Bureau of Indian Affairs (BIA), 63% of students reported ever having had sexual intercourse, and 40% reported having been sexually active during the preceding 30 days. Of those who were currently sexually active, 38% said they drank alcohol or used drugs before having sexual intercourse.

EVIDENCE THAT PREVENTION WORKS

Studies show that school-based HIV prevention programs reduce students' risk for HIV transmission by educating them to delay their first sexual intercourse, reduce the number of sex partners, and increase their use of condoms. At least partly as a result of HIV prevention efforts, the percentage of high school students who had had sexual intercourse dropped from 54% in 1991 to 50% in 1999.

PROGRAM EXAMPLE

With support from CDC and in collaboration with the BIA, the South Dakota Department of Education is strengthening HIV prevention efforts among young American Indians in BIA schools and in South Dakota public schools. South Dakota has implemented the *Circle of Life,* an HIV prevention curricula and teacher training program for American Indian youth. Curricula materials and training have been provided to all elementary and middle school teachers in two BIA schools. In the public school district with the highest percentage of American Indians in the state, all elementary and middle school teachers were trained.

IMPLICATIONS

Circle of Life is one of the first HIV prevention curricula for youth that incorporates American Indian culture and beliefs. The *Circle of Life* curricula and training program will help schools be more effective in preventing transmission of HIV among American Indian youth in South Dakota and can serve as a model for other states.

Healthy Youth

TENNESSEE

SCHOOL HIV PREVENTION PROGRAM

PUBLIC HEALTH PROBLEM

Almost two-thirds of our nation's young people have had sexual intercourse by the time they graduate from high school. Half of all new HIV infections each year occur among young people aged 13–24, and HIV infection rates are increasing most rapidly among adolescent women. Thus, HIV prevention programs for young people are critically important.

EVIDENCE THAT PREVENTION WORKS

Studies show that school-based HIV prevention programs reduce students' risk for HIV transmission by educating them to delay their first sexual intercourse, reduce the number of sex partners, and increase their use of condoms. At least partly as a result of HIV prevention efforts, the percentage of high school students who had had sexual intercourse dropped from 54% in 1991 to 50% in 1999.

PROGRAM EXAMPLE

CDC supports HIV prevention education in all 50 states. As part of the Tennessee Department of Education's training plan for HIV prevention programs in schools, a skilled cadre of trainers have provided HIV prevention education to teachers, counselors, administrators, parents, and students. In addition, the Tennessee Department of Education has partnered with the Tennessee Department of Children's Services to reach young people in juvenile detention centers and group homes. The Tennessee Department of Education also works with the Memphis Chapter of the American Red Cross and the YMCA Urban Services Center to establish peer education programs in schools and in out-of-school settings.

IMPLICATIONS

CDC and the Tennessee Department of Education are building a highly skilled cadre of teachers, counselors, administrators, parents, and peer educators who can provide potentially life-saving HIV prevention education to Tennessee's young people.

Healthy Youth

TEXAS

COORDINATED APPROACH TO CHILD HEALTH (CATCH)

PUBLIC HEALTH PROBLEM

Together, poor nutrition and lack of physical activity have contributed to an unprecedented epidemic of childhood obesity: the percentage of young people who are overweight has doubled since 1980. More than 60% of young people eat too much fat, and less than 20% eat the recommended number of servings of fruits and vegetables each day. Seventy-three percent of high school students do not participate in moderate physical activity.

EVIDENCE THAT PREVENTION WORKS

Rigorous studies show that health education in schools effectively reduces health risk behaviors among young people. The Coordinated Approach to Child Health (CATCH) is a coordinated school health program designed to increase children's physical activity levels and improve their diets. It was effective in changing these behaviors in a trial among third-grade students in four states—California, Louisiana, Minnesota, and Texas. Behavior modifications brought about through the program were still evident among CATCH children 3 years after the study ended.

PROGRAM EXAMPLE

The Prevention Research Center at the University of Texas–Houston Health Science Center is working with the Texas Department of Health and the Texas Diabetes Council to disseminate CATCH to schools throughout Texas. Prevention researchers have developed a social marketing program to accelerate the establishment of CATCH in Texas schools. To date, this program has been adopted by more than 800 schools in Texas and is reaching more than 500,000 children. Fifteen hundred teachers in Texas have been trained to use CATCH.

IMPLICATIONS

Nutrition and physical activity programs in schools are powerful weapons for stemming the epidemic of obesity among young people. Working together, prevention researchers, health department staff, and education specialists can speed the adoption of these programs in our nation's schools.

Heart Disease and Stroke

Heart Disease and Stroke

ALABAMA

COMMUNITY HEALTH ADVISOR INTERVENTION

PUBLIC HEALTH PROBLEM

Heart disease and stroke are the most common causes of death in Alabama, accounting for 41% of all deaths. Among women in Alabama, heart disease and stroke claim more lives than the next 14 causes of death combined. Rates of death due to heart disease and stroke among African American women in rural Alabama are in the top 20% in the nation.

EVIDENCE THAT PREVENTION WORKS

Long-standing relationships between academic institutions and their communities bring public health researchers closer to those they serve. Because of their ties to the surrounding communities, researchers are able to design and introduce prevention strategies that are tailored to these communities.

PROGRAM EXAMPLE

The CDC-supported Center for Health Promotion at the University of Alabama at Birmingham developed, implemented, and evaluated interventions that used community health advisors to reduce the risk of heart disease and stroke among rural, African American women ages 40 and older. Community health advisors are community members recruited and trained to develop leadership skills and to conduct community-level programs that focus on healthy nutrition, physical activity, and smoking cessation. Of the African American women in the intervention community, 85% had some contact with the project.

Results show that more of the women in the intervention community reported being aware of common recommendations for preventing heart disease: decreasing one's dietary intake of salt, fat, and cholesterol and engaging in regular physical activity. More women also recognized chest pain as a symptom of a heart attack. Additionally, African American women in the intervention community reported decreased levels of stress and cigarette smoking. Women in exercise programs lost weight and reported increased physical activity, and women participating in nutrition classes reported healthier cooking practices.

IMPLICATIONS

Using community-based health advisors to promote behavior change provides credibility to interventions to reduce people's risk for heart disease and stroke and increases the reach of the program in the community. After this intervention ended, the community health advisors worked with the state health department and others to bring USDA-supported nutrition-education programs to schools and other venues.

Heart Disease and Stroke

NEW YORK

HEART CHECK AT THE WORKSITE

PUBLIC HEALTH PROBLEM

Businesses and industries in New York State experience high health care costs and lost productivity due to heart disease and stroke. New York has the nation's highest rate of death from coronary heart disease among adults aged 35 and older. Coronary heart disease caused 48,117 deaths in New York State in 1995, or 1 of every 3.5 deaths. The worksite is an ideal place to educate people about heart health and to promote heart-healthy changes to worksite policies and the work environment.

EVIDENCE THAT PREVENTION WORKS

Thirty years of research has demonstrated that adopting healthier lifestyles can prevent heart disease and stroke and improve the health of people who already have these diseases. For example, people who stop smoking reduce their risk for heart disease rapidly and substantially. Improved nutrition and physical activity help to control high blood pressure. Research conducted in the 1980s showed that community-wide interventions that change the environments we live in—worksites, schools, and communities—are particularly effective in reducing heart disease and stroke throughout whole communities.

PROGRAM EXAMPLE

The CDC-supported New York Healthy Heart Program developed Heart Check, a tool for assessing heart-healthy policies and environments, and applied this tool at over 100 worksites. As a result of this assessment, many of these worksites made changes to promote heart health. Examples of these changes included providing healthy low-fat food options in vending machines and worksite cafeterias, physical activity breaks during the day, accessible and appealing stairwells to promote stair use, smoke-free buildings, exercise facilities, and bike racks to promote biking to work. Worksite environmental supports that encourage heart health increased by 65%, nutrition supports increased by 97%, and physical activity supports increased by 137%. These changes made it easier for employees to be smoke-free and physically active and to eat well during the workday.

IMPLICATIONS

Changes to worksite policies and the work environment that promote good nutrition, physical activity, and a smoke-free environment for employees have the potential to reduce high health care costs and lost productivity due to heart disease and stroke. Heart Check has been adopted by other state heart-health programs.

Heart Disease and Stroke

SOUTH CAROLINA

TEACHING HEALTH ACROSS THE CURRICULUM

PUBLIC HEALTH PROBLEM

Nearly 14% of children in South Carolina do not engage in any regular leisure-time physical activity, and only 25% engage in light to moderate daily physical activity. Lack of physical activity is one of the leading risk factors for heart disease and stroke. Public and private school teachers are in a unique position to promote physical activity among their students. However, few teachers in South Carolina receive health education training. In 1996, only two teachers in South Carolina were certified health educators.

EVIDENCE THAT PREVENTION WORKS

Studies have found that integrating nutrition education and physical activity into the curriculum can have lasting effects. For example, one study found that integrating heart-healthy nutrition across the curriculum resulted in third-grade students continuing to make healthy nutritional choices for 2–3 years after the program ended.

PROGRAM EXAMPLE

With CDC support, South Carolina trained school district staff in how to help students adopt healthy behaviors such as good nutrition and physical activity that will reduce their risk for heart disease and stroke later in life. Ninety-three teachers in 11 school districts were trained to use "Teaching Health Across the Curriculum," a course that shows teachers how to integrate interactive education on physical activity and nutrition into elementary and middle school classrooms. Follow-up evaluation showed that 70% of participating teachers incorporated the skills they had learned from the workshop into daily classroom lessons.

IMPLICATIONS

Elementary and middle school teachers are in key positions to encourage their students to adopt healthy lifestyles. However, teachers are most effective when they have been trained in promoting good nutrition and physical activity and have been shown ways to integrate these subjects into the curriculum.

Oral Health

Wisconsin

Healthy Smiles

Public Health Problem

Because of preventive strategies such as water fluoridation and the use of fluoride toothpastes and mouth rinses, the number of school children with dental decay (cavities) has declined dramatically. Despite this improvement, however, dental decay remains a significant problem for many children, especially poor children and children of some racial or ethnic groups.

- In the United States, 52% of children aged 5–9 years have had a cavity.
- In the United States, only 23% of all 8-year-olds have at least one dental sealant, and only 3% of 8-year-olds living in poverty have a dental sealant.
- In Milwaukee, fewer than 10% of children aged 6–14 years have at least one dental sealant.

Evidence That Prevention Works

Dental sealants—a plastic coating placed in the pits and grooves of molar teeth—prevent dental cavities. The U.S. Task Force for Community Preventive Services recently reviewed the scientific evidence of the effectiveness of school dental sealant programs, which showed that sealants reduce dental cavities by 60%. The Task Force issued a strong recommendation that school programs be set up to provide dental sealants to children.

Program Example

Healthy Smiles for Wisconsin is a statewide program, supported by CDC, to improve the oral health of Wisconsin children through school and community partnerships. The program is a collaboration between Wisconsin's Department of Public Instruction and its Department of Health and Family Services. Activities include the formation of the statewide Healthy Smiles for Wisconsin Coalition. This coalition is made up of more than 25 state, public, and private agencies and organizations within Wisconsin. The coalition's Seal a Smile Initiative (a dental sealant program), which started in October 2000, enabled 40 new community dental sealant programs to be set up during the 2000-2001 school year. As of February 2001, more than 3,000 school children in 40 counties across Wisconsin had received dental sealants through this program.

Implications

Dental sealants are a cost-effective means of reducing dental cavities in school children. Increasing access to dental sealants for children of low-income families significantly decreases their risk for tooth decay, their pain and suffering, the cost of their treatment, and their time away from school.

Physical Activity

HAWAII

INCREASING PHYSICAL ACTIVITY AMONG HAWAIIANS

PUBLIC HEALTH PROBLEM

Physical inactivity is one of the leading underlying causes of preventable deaths in the United States, contributing to the development of many chronic diseases and resulting in more than $75 billion in direct medical costs each year. In Hawaii, inactivity levels are especially high among young people, women, and minority populations.

EVIDENCE THAT PREVENTION WORKS

Increased levels of regular physical activity have been shown to help prevent or control hypertension and diabetes and to reduce the risk for cardiovascular disease, colon cancer, osteoporosis, depression, and anxiety. Regular physical activity also enhances healthy aging by helping people maintain their physical function and independence.

PROGRAM EXAMPLE

With support from CDC, Hawaii is undertaking comprehensive efforts to increase physical activity among Hawaiians. CDC helped to determine rates of physical inactivity and related chronic diseases in Hawaii and helped the state write a strategic physical activity plan that included an estimate of the medical care costs of inactivity in Hawaii. This plan was instrumental in obtaining state funding of more than $1 million per year for 10–15 years for a state-based program to promote physical activity.

IMPLICATIONS

Given the level of funding for the state's physical activity promotion program, Hawaii should develop a model physical activity promotion program integrated into a broader prevention initiative that also focuses on tobacco control and good nutrition.

Physical Activity

MISSOURI

BOOT HEEL HEART HEALTH PROJECT

PUBLIC HEALTH PROBLEM

Five of six counties in the southeast corner—the "boot heel"—of Missouri have rates of heart disease and stroke significantly higher than in the rest of the state. This region of the state has high poverty and low medical coverage and contains Missouri's largest rural African American population. In 1998, in the stste as a whole, no leisure-time physical activity was reported by 33% of blacks, 27% of whites, and 22% of Hispanics.

EVIDENCE THAT PREVENTION WORKS

Increased levels of regular physical activity have been shown to help prevent or control hypertension and to reduce the risk for heart disease and stroke as well as for other chronic diseases. The new *Guide for Preventive Health Services* lists environmental interventions such as building walking trails and other means of improving access to physical activity as strongly recommended prevention activities.

PROGRAM EXAMPLE

The St. Louis University Prevention Research Center, in collaboration with the Missouri Department of Health, used a CDC grant to develop and evaluate a physical activity program in rural communities in the Bootheel and Ozark areas of Missouri. Through this program, community coalitions formed walking clubs, built walking trails, started exercise classes in community churches, and organized special events to promote physical activity. The program evaluation found that 42% of community residents used walking trails established through the program and that almost 60% of trail users reported having increased their physical activity since the trails were built. The evaluation also found that women and people with lower educational levels—groups at high risk for physical inactivity—may be especially responsive to walking trails. This project has served as a living laboratory for demonstrating the effectiveness of community-based prevention efforts

IMPLICATIONS

Even with modest resources, community-based interventions show promise in reducing behavioral risk factors for heart disease and stroke within a relatively brief period. These community-based efforts can be replicated in other communities. For instance, similar efforts in Nebraska suggest that low-cost trails can attract new users who will increase their level of activity to that recommended by CDC and the American College of Sports Medicine.

SOUTH CAROLINA

KIDSWALK-TO-SCHOOL

PUBLIC HEALTH PROBLEM

The number of overweight children in the United States has increased by 63% over the past 30 years. Health officials estimate that more than 135,000 young people aged 6–17 years in South Carolina are overweight and that 65,000 are obese. Research findings suggest that lower rates of walking and bicycling among children may be contributing to these dramatic increases.

EVIDENCE THAT PREVENTION WORKS

Physical activity provides critical health benefits for people of all ages. Moderate physical activity performed on most days of the week can substantially reduce the risk of dying from heart disease, the leading cause of death in the United States, and can reduce the risk of developing colon cancer, diabetes, and high blood pressure.

PROGRAM EXAMPLE

South Carolina is promoting walking to school and creating safe routes to school. The Walkable South Carolina Committee of the South Carolina Governor's Council on Physical Fitness awarded $12,500 in grants to 58 schools around the state for Walk-to-School Day in 1999 and 2000. Funding for the grants was provided by the governor's council and by the South Carolina Department of Health and Environmental Control. These grants promote policy and environmental changes designed to make walking and bicycling year-round activities for everyone. Each school that receives a grant will complete the Walkable Routes to School Survey in the CDC's KidsWalk-to-School guide to identify and address problems that make walking to school difficult or unsafe. CDC developed the KidsWalk-to-School guide to help communities develop, implement, and evaluate walking programs. This popular guide has been distributed to more than 12,000 interested parents and community leaders nationwide.

The University of South Carolina Prevention Center plans to evaluate the effectiveness of walk-to-school programs and is collecting preliminary data on how children travel to school.

IMPLICATIONS

The KidsWalk-to-School program encourages physical activity as an integral part of a child's daily routine. It assumes that teaching children the importance and pleasure of walking and bicycling to and from school may increase the likelihood that they will engage in other forms of physical activity and carry these habits into adulthood.

Preventing Chronic Disease

Preventing Chronic Disease

CALIFORNIA

FLEXIBLE FUNDS USED TO PREVENT SKIN CANCER

PUBLIC HEALTH PROBLEM

In California, about 156,000 cases of skin cancer will be diagnosed this year. The rate for melanoma—the most lethal form of skin cancer—more than doubled in California from 1988 to 1997. Exposure to the sun's ultraviolet rays appears to be the most important factor in the development of skin cancer. Skin cancer is largely preventable when sun-protection measures are consistently used. A random telephone survey of thousands of non-Hispanic, white California adults found that less than 15% avoided the midday sun, less than 23% used sun screen, and less than 28% wore protective clothing.

EVIDENCE THAT PREVENTION WORKS

Research suggests that children who learn healthy behaviors often keep those behaviors throughout their lives. Parents, health care providers, schools, and community organizations can play a major role in reinforcing sun-protection behaviors (e.g., staying out of direct sunlight or timing outdoor activities for hours when UV light is less intense) and changing attitudes about exposure to the sun (e.g., the opinion that a person looks more attractive with a tan).

PROGRAM EXAMPLE

CDC's Preventive Health and Health Services (PHHS) Block Grant funds are flexible funds used by states to address unexpected health threats or to fill gaps in areas not covered by other federal funding. The California Skin Cancer Prevention Program used Block Grant funds to revise and distribute sun-safety education packages to 1,500 child care centers and preschools. Designed for use with children aged 3–5 years, the package includes a curriculum, video, poster, and sun-protection guidelines for outdoor activities. Evaluation forms returned from sites that used these packages consistently rate the materials as "good" or "excellent." Some child care sites are developing their own sun-protection policies. PHHS Block Grant funds made this critical program possible.

IMPLICATIONS

Approximately 80% of lifetime sun exposure occurs by age 20, causing 90% of all skin cancers. Programs such as this one can play a critical role in educating children, their parents, and other caretakers to begin preventing sun exposure as early as possible. Teaching children about sun safety, combined with changing policicies at child care centers, will help children form healthy habits that will decrease their chances of acquiring skin cancer later in life.

CONNECTICUT

FLEXIBLE FUNDS USED TO PREVENT INJURIES

PUBLIC HEALTH PROBLEM

Unintentional injuries are the leading cause of death for people aged 1–44 years in Connecticut. Thirty-two percent of all deaths among children aged 1–14 and 41% of all deaths among young people aged 15–24 are caused by unintentional injuries. Car crashes are the leading cause of injury-related hospital visits in Connecticut.

EVIDENCE THAT PREVENTION WORKS

Research has found that using seat belts in cars reduces front-seat passengers' risk for fatal injury by 45% and their risk for moderate-to-critical injury by 50%. The National Safe Kids Campaign estimates that child restraints saved the lives of more than 300 car passengers aged 4 and younger in 1999. Among passengers older than age 4, safety belts saved an estimated 11,088 lives in 1998.

PROGRAM EXAMPLE

CDC's Preventive Health and Health Services Block Grant funds are flexible funds used by states to address unexpected health threats or to fill gaps in areas not covered by other federal funding. Six local health departments in Connecticut used Block Grant funding, the only source of funding available for unintentional injury prevention in Connecticut, for programs focused on decreasing the rates of injury and death from car crashes. Activities included

- Car safety seat checkup clinics to assess seat buckling and misuse of child restraints and to train parents and caregivers to install safety seats correctly.
- Education and public awareness to increase the use of safety belts.
- Pedestrian safety skills programs for children, parents, and other drivers.

Evaluations found that 88% of those who had participated in the child safety seat clinic reported or were observed using safety seats correctly and that 70% of participants who had completed the pedestrian safety program were able to identify pedestrian safety measures.

IMPLICATIONS

The simple act of buckling a seat belt or correctly installing a child safety seat saves thousands of lives every year. Education and training programs are an important way to encourage people to adopt these safe habits. The Preventive Health and Health Service Block Grant funds made this critical injury prevention program possible.

CDC

Preventing Chronic Disease

ILLINOIS

REACH OUT TO PREVENT BREAST AND CERVICAL CANCER

PUBLIC HEALTH PROBLEM

African American women in the United States are more likely to die of breast cancer than are women of any other racial or ethnic group. Cervical cancer death rates are more than twice the national average among African American women and are also higher than average among Hispanic women.

EVIDENCE THAT PREVENTION WORKS

Timely mammography screening could prevent 15%–30% of all deaths from breast cancer among women older than age 40. According to the American Cancer Society, between 1955 and 1992, the number of deaths from cervical cancer declined by 74%. The main reason for this decline is the use of the Papanicolaou test to find cervical cancer early.

PROGRAM EXAMPLE

In 1998, Illinois was in the highest quartile of states for women aged 50 years and older reporting not having had a mammogram in the last 2 years. Reach Out—supported by CDC's Racial and Ethnic Approaches to Community Health (REACH) program— is a Chicago-area collaboration that draws on the leadership within local churches to encourage low-income African American and Hispanic women to seek early breast and cervical cancer screening. Reach Out held focus groups of women members of seven African American and two Latino churches. Participants clearly indicated that they wanted spiritually relevant information about how breast and cervical cancer could affect them as individuals and as a community. Using these results, the Reach Out coalition held three pilot educational forums in churches to mobilize women to seek breast and cervical cancer screening. For one forum, 66 women came together for a weekend educational session led by lay educators and backed by physicians and nurses from the Access Community Health Network.

IMPLICATIONS

Community-based programs like Reach Out that seek community input are more likely than traditional programs to be responsive to the needs and the culture of the community. This approach can extend life-saving prevention progams and screening services across cultural divides to communities that would likely not be reached by traditional programs.

Preventing Chronic Disease

NEW JERSEY

FLEXIBLE FUNDS USED FOR BREAST AND CERVICAL CANCER PREVENTION

PUBLIC HEALTH PROBLEM

From 1979 to 1995, breast cancer accounted for 30% of all cancers diagnosed among New Jersey women. The annual age-adjusted death rate for breast cancer during that period ranged from 27.1 to 33.2 deaths per 100,000 women. No state and little federal funding was available for breast cancer prevention, education, or screening programs in New Jersey during those years.

EVIDENCE THAT PREVENTION WORKS

Timely mammography screening could prevent 15%–30% of all deaths from breast cancer among women older than age 40. Detecting precancerous lesions by a Papanicolaou test and treating them can prevent cervical cancer and therefore prevent virtually all deaths from this disease.

PROGRAM EXAMPLE

Preventive Health and Health Services Block Grant funds are flexible funds used by states to address unexpected health threats or to fill gaps in areas not covered by other federal funding. In FY1991, the New Jersey Department of Health dedicated $238,000 of their Block Grant funds to develop and distribute a statewide mammography directory, establish cancer awareness training programs, and provide education and early intervention programs for women of racial and ethnic minority groups. In 1993, it followed up these prevention efforts by allocating $250,000 of Block Grant funds to the five counties with the highest incidence of breast and cervical cancer: Burlington, Camden, Mercer, Middlesex, and Morris. This groundwork helped the state successfully compete for a Comprehensive Breast and Cervical Cancer Grant from CDC in 1995. With this new comprehensive grant, the state expanded its initial program and launched New Jersey's first statewide education, screening, and early detection programs for breast and cervical cancer.

IMPLICATIONS

By using Block Grant funds to demonstrate that programs to address high rates of breast and cervical cancer were both needed and feasible in New Jersey, the New Jersey Department of Health became eligible for comprehensive funding from CDC's National Breast and Cervical Cancer Early Detection Program. Because of this funding, New Jersey has been able to reallocate its Block Grant funds to other priority health areas.

Preventing Chronic Disease

NORTH CAROLINA

WISEWOMAN

PUBLIC HEALTH PROBLEM

Heart disease is the leading cause of death in the United States. In North Carolina, one in five people suffers from some form of heart disease, which causes more than 40% of all deaths in the state. Uninsured women may be especially vulnerable because they are less likely to receive hypertension and cholesterol screening and weight loss and smoking cessation counseling.

EVIDENCE THAT PREVENTION WORKS

Research has demonstrated that preventive measures such as improved nutrition, increased physical activity, and early detection and intervention can prevent heart disease and stroke and improve the health of people who already have heart disease. Improving nutrition and increasing physical activity can be particularly challenging for low-income women, who often do not have access to fitness centers and nutrition counseling. However, low-income women can improve their heart health. For example, the Food for Heart program, tested in community health centers serving low-income men and women in North Carolina and Virginia, was effective in lowering participants' total cholesterol and low-density lipoprotein cholesterol.

PROGRAM EXAMPLE

CDC-funded WISEWOMAN programs provide preventive services to participants in CDC's National Breast and Cervical Cancer Early Detection Program. States use this established system to screen women for risk factors for heart disease and other chronic diseases, deliver dietary and physical activity interventions, and provide referrals. North Carolina has established and evaluated New Leaf...Choices for Healthy Living, a WISEWOMAN program designed for women with low-literacy levels. From 1995 through 1997, more than 2,100 women in 31 North Carolina counties were screened for risk factors for heart disease and stroke through WISEWOMAN. In 17 counties, women received minimal counseling on diet and physical activity; in 14 counties, women participated in the New Leaf program. After 1 year, lipid and blood pressure values improved and the risk for death due to heart disease and stroke declined among women in all counties. In addition, women who participated in the New Leaf program improved their diet much more than women who received only minimal dietary and physical activity counseling.

IMPLICATIONS

Screening and lifestyle interventions can improve the health of women. The New Leaf program is a promising tool for reaching low-income women and is worthy of replication.

CDC

Preventing Chronic Disease

OREGON

TRACKING PUBLIC SUPPORT FOR A SMOKE-FREE WORKPLACE

PUBLIC HEALTH PROBLEM

Each year in the United States, exposure to environmental tobacco smoke (ETS) accounts for approximately 3,000 lung cancer deaths among adults who do not smoke. As part of Oregon's tobacco prevention activities, communities are encouraged to protect workers from exposure to the harmful effects of ETS. However, some local politicians and tobacco-industry supporters counter public health efforts by claiming that ETS is not harmful to health and is not a problem in Oregon.

EVIDENCE THAT PREVENTION WORKS

CDC's state-based Behavioral Risk Factor Surveillance System (BRFSS) collects data on the prevalence of risk behaviors among U.S. adults and their perceptions of a variety of health issues. States rely heavily on BRFSS data to determine priority health issues and identify populations at highest risk, develop and monitor the effectiveness of prevention programs, and support community policies that promote health and prevent disease.

PROGRAM EXAMPLE

As a participant in the BRFSS, Oregon surveys its residents about health risk behaviors, including exposure to ETS. Residents' responses indicate strong public support for smoke-free environments:

- More than 90% of Oregonians think that breathing secondhand smoke is harmful to health, and about 85% think that people should be protected from ETS.
- One out of every four Oregon workers reports being exposed to ETS in the workplace.
- Two out of every three Oregonians think that smoking should not be allowed at all in any indoor workplace.

These results make it possible to implement important health policies such as banning smoking in the workplace. Currently almost 30% of Oregonians live in localities where smoking is banned in all or nearly all workplaces.

IMPLICATIONS

The BRFSS is an effective tool for summarizing public opinion on key health issues such as environmental tobacco smoke. BRFSS data can be used in other states to promote smoke-free environments.

Tobacco

CDC Tobacco

ARIZONA

COMPREHENSIVE TOBACCO CONTROL

PUBLIC HEALTH PROBLEM

Of the 1,193,270 young people aged 17 and younger in Arizona, 98,516 will die prematurely from a tobacco-related disease if current tobacco-use patterns persist.

EVIDENCE THAT PREVENTION WORKS

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, and Oregon have produced substantial declines in rates of cigarette use. In California, home to one of the longest-running tobacco control programs, declines in rates of tobacco use have resulted in declines in rates of lung cancer and heart disease.

PROGRAM EXAMPLE

In 1994, Arizona passed the Tobacco Tax and Healthcare Act, which increased the cigarette tax from $0.18 to $0.58 and allocated 23% of the resulting revenues to tobacco-control activities. Since 1995, Arizona has used these tobacco-control funds (approximately $30 million per year) to support the Tobacco Education and Prevention Program (TEPP), a comprehensive program to prevent and reduce tobacco use. TEPP, which also receives CDC support, currently funds about 22 local community organizations or agencies, including American Indian tribes. In addition, the program administers the statewide cessation helpline for both English and Spanish speakers. TEPP has also worked with the Coalition for Tobacco Free Arizona Policy Education Subcommittee and the Arizona Department of Education to develop a checklist to assess a school's progress toward adhering to the new tobacco-free schools guidelines and to help schools adopt their own policies. According to the 1999 Arizona Adult Tobacco Survey Report, released in 2000,

- The percentage of Arizona adults who reported smoking declined from 23.8% in 1996 to 18.8% in 1999, which represents a 21% decrease in adult smokers.
- Among 18- to 24-year-olds, tobacco use declined from 27.5% in 1996 to 21.0% in 1999, a 24% decrease.

IMPLICATIONS

The Arizona TEPP incorporates all nine components of a comprehensive tobacco control program as recommended in CDC's *Best Practices for Comprehensive Tobacco Control Programs*. The decline in rates of tobacco use in Arizona is a striking example of what a comprehensive tobacco control program can accomplish when it is supported by adequate resources.

Tobacco

CALIFORNIA

COMPREHENSIVE TOBACCO CONTROL

PUBLIC HEALTH PROBLEM

Data from the California Youth Tobacco Survey indicate that the prevalence of smoking during the past 30 days among 12- to 17-year-olds in California increased from approximately 9% in the early 1990s to nearly 12% in 1995. Of the 8,793,616 young people aged 17 and younger in California, more than 450,000 would die prematurely from a tobacco-related disease if these tobacco-use patterns persisted.

EVIDENCE THAT PREVENTION WORKS

Funding local programs has been shown to produce measurable progress toward meeting statewide tobacco control objectives, including declines in per capita cigarette consumption, in rates of exposure to secondhand smoke, and in the percentage of successful attempts by young people to buy cigarettes.

PROGRAM EXAMPLE

Established by a 1988 ballot initiative, the CDC-supported California Tobacco Control Program is one of the longest-running programs in the country and serves as a model for other such programs. By law, one-third of the program's funds supports school-based activities to prevent tobacco use and the other two-thirds supports a comprehensive health education effort. As part of this effort, the program funds 61 local health departments, four ethnic networks, 11 regional community linkage projects, 90 community-based organizations, a statewide media campaign, and other statewide support systems. Since the program was established, California has made significant progress in several tobacco-related measures, including the following:

- The overall prevalence of tobacco use in California has declined at nearly twice the rate of that in the United States.
- Rates of smoking among young people declined by 43% from 1995 to 1999.
- Sixty-four percent of all homes enforce a voluntary smoking ban, and 87% of all children are protected from secondhand smoke in their homes.

The California program is the first in the country to demonstrate long-term health-related changes, including declines in lung cancer and heart disease rates.

IMPLICATIONS

The declines in lung cancer and heart disease rates in California are striking examples of what a tobacco control program can accomplish when it is supported by adequate resources and sustained over time.

CDC

Tobacco

FLORIDA

COMPREHENSIVE TOBACCO CONTROL

PUBLIC HEALTH PROBLEM

Of the 3,371,328 young people aged 17 and under in Florida, 297,108 will die prematurely from a tobacco-related disease if current tobacco-use patterns persist.

EVIDENCE THAT PREVENTION WORKS

Funding local programs has been shown to produce measurable progress toward meeting statewide tobacco control objectives, including large declines in per capita consumption of cigarettes, in rates of exposure to secondhand smoke, and in the percentage of successful attempts by young people to buy cigarettes.

PROGRAM EXAMPLE

One of the missions of Florida's CDC-supported tobacco control program is to prevent and reduce tobacco use among young people as a critical first step in reducing their lifetime risk for tobacco-related illness and death. To achieve the program's vision that Florida's young people live tobacco-free, the Office of Tobacco Control addresses four goals: (1) change young people's attitudes about tobacco, (2) increase youth empowerment through community involvement, (3) reduce the availability of and youth access to tobacco products, and (4) reduce young people's exposure to secondhand smoke. Since Florida's youth-focused tobacco control program was launched in early 1998, tobacco use among young people has declined significantly:

- Current cigarette use declined from 18.5 % to 11.1% among middle school students (a 40% decrease) and from 27.4% to 22.6% among high school students (an 18% decrease).
- Current smokeless tobacco use declined from 6.9% to 3.2% among middle school students (a 54% decrease) and from 6.7% to 5.4% among high school students (a 19% decrease).

IMPLICATIONS

By addressing youth tobacco use in the social context in which it occurs, Florida's tobacco control program should be able to consolidate the reductions in youth tobacco use observed so far, achieve additional reductions in adult cigarette use (which would lead to more immediate health and economic benefits), and ultimately achieve its vision that young people in Florida live tobacco free.

Tobacco

MAINE

PARTNERSHIP FOR TOBACCO-FREE MAINE

PUBLIC HEALTH PROBLEM

Maine has one of the highest rates of smoking among young adults in the nation. For example, of young men in Maine aged 18–30, 44% smoke. If these high rates of tobacco use continue, approximately 10% of young people currently aged 17 years or younger in Maine will die prematurely of a tobacco-related disease.

EVIDENCE THAT PREVENTION WORKS

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, and Oregon have produced substantial declines in rates of cigarette use. In California, home to one of the longest- running tobacco control programs, declines in rates of tobacco use have resulted in declines in rates of lung cancer and heart disease.

PROGRAM EXAMPLE

The Partnership for a Tobacco-Free Maine uses funds from CDC and state excise taxes to implement CDC's Guidelines for School Health Programs in schools and to establish tobacco prevention and control programs in communities. In addition, CDC and excise tax funds are used to support statewide media campaigns, evaluation efforts, and training and technical assistance contracts for community programs. At least partly as a result of the partnership's efforts,

- Smoking rates decreased 27% among Maine high school students from 1997 to 1999.
- Maine's Smoke-Free Restaurant Law went into effect in September 1999. According to a recent poll, three-fourths of Maine residents support the law, and 85%–90% say their patronage is at least the same as before the law went into effect.
- Nine local initiatives focused on developing smoke-free policies in 1999. One of these was at the Farmington Campus of the University of Maine, which will be completely smoke-free by 2003.
- Cigarette taxes in Maine doubled from 37 cents per pack in 1997 to 74 cents in 2000, and overall tobacco sales dropped by 17% from 1997–2000.

IMPLICATIONS

Policy changes greatly affect tobacco use patterns in this country. When states and local communities are successful in implementing new policies such as Maine's Smoke-Free Restaurant Law, communities begin to see reductions in access to and use of tobacco.

CDC

Tobacco

MASSACHUSETTS

COMPREHENSIVE TOBACCO CONTROL

PUBLIC HEALTH PROBLEM

Tobacco use is the leading cause of preventable death in Massachusetts, resulting in an estimated 10,000 deaths each year. Of the 1,431,854 young people aged 17 and younger in Massachusetts, 105,659 will die prematurely of a tobacco-related disease if current tobacco-use patterns persist.

EVIDENCE THAT PREVENTION WORKS

Funding local programs has been shown to produce measurable progress toward meeting statewide tobacco control objectives, including large declines in per capita consumption of cigarettes, in exposure to secondhand smoke, and in the percentage of successful attempts by young people to buy cigarettes.

PROGRAM EXAMPLE

The CDC-supported Massachusetts Tobacco Control Program has developed and established targeted community smoking intervention programs, which use innovative strategies to

- Involve groups at high risk for tobacco use in changing community norms that support tobacco use.
- Prevent or interrupt regular use among risk-taking young people.
- Provide groups with high rates of tobacco use with services to help them quit.

One of these strategies is the Innovative Intervention for Risk-Taking Youth Program, which provides skill-building activities that foster youth leadership in tobacco control. The program also offers services to help young people quit smoking.

Among the dramatic declines in tobacco sales and tobacco use in Massachusetts since the Targeted Community Smoking Intervention Programs were launched are the following:

- Total per-capita cigarette purchases in Massachusetts fell 30% from 1992 to 1998.
- The percentage of attempted tobacco purchases by underage people that were successful dropped from 48% in 1994 to 10% in 1999.
- From 1995 to 1999, smoking rates declined by 70% among 6th grade students and by 38% among 7th and 8th grade students.

IMPLICATIONS

The declines in tobacco sales and tobacco use in Massachusetts are striking examples of what a tobacco control program can accomplish when it is supported by adequate resources and sustained over time.

CDC Tobacco

OREGON

COMPREHENSIVE TOBACCO CONTROL

PUBLIC HEALTH PROBLEM

More than 500,000 adults in Oregon smoke. Tobacco contributes to 6,000 Oregon deaths annually. Of the 767,040 people aged 17 and younger in Oregon, more than 61,000 will die prematurely from a tobacco-related disease if current tobacco-use patterns persist.

EVIDENCE THAT PREVENTION WORKS

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, and Oregon have produced substantial declines in rates of cigarette use. In California, home to one of the longest- running tobacco control programs, declines in rates of tobacco use have resulted in declines in rates of lung cancer and heart disease.

PROGRAM EXAMPLE

Oregon's CDC-sponsored comprehensive tobacco control program includes hard-hitting media spots, innovative programs to help people quit smoking, a multifaceted school program, and widespread efforts to promote smoke-free workplaces and school environments. In addition, the state health department has created a full-time staff position with responsibility for eliminating disparities in tobacco use and has dedicated funding to target groups with high rates of tobacco use such as gay men, African Americans, and those with low incomes. Since Oregon's comprehensive program was established in 1996,

- Cigarette consumption has dropped by 23% (one billion cigarettes per year).
- The proportion of Oregon students who smoke dropped from 22% to 13% among 8th graders and from 28% to 22% among 11th graders.
- The proportion of Oregon adults who smoke decreased from 23% to 20%.
- Twenty-one Oregon communities have enacted local ordinances protecting citizens from second-hand smoke or restricting minors' access to tobacco products.

IMPLICATIONS

Because almost all smokers begin smoking during their teenage years, preventing tobacco use among young people is critical to the overall goal of reducing the prevalence of smoking. Programs like the Oregon Comprehensive Tobacco Control Program play pivotal roles in reducing and eliminating tobacco use among Americans.

VERMONT

COMPREHENSIVE TOBACCO CONTROL

PUBLIC HEALTH PROBLEM

Every year 1,000 Vermonters die from tobacco-related illness. Cigarette smoking is becoming more popular among both young people and adults in Vermont. Additionally, nearly half (45%) of all Vermont smokers have children under age 17 living in their household.

EVIDENCE THAT PREVENTION WORKS

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, and Oregon have produced substantial declines in rates of cigarette use. In California, home to one of the longest-running tobacco control programs, declines in rates of tobacco use have resulted in declines in rates of lung cancer and heart disease.

PROGRAM EXAMPLE

The CDC-supported Tobacco Control Program run by the Vermont Department of Health supports Vermont Kids Against Tobacco (VKAT). Over the past 5 years, children in VKAT groups in schools and other sites around the state have been devoted to keeping themselves and their peers tobacco-free. The tobacco control program is also sponsoring media campaign programs targeting young people, including an ongoing prevention-oriented campaign targeting young people ages 10–13 and a new social norms-oriented campaign designed to correct misconceptions about the prevalence of cigarette smoking among young people.

At least partly as a result of Vermont's efforts to prevent and control tobacco use, smoking rates decreased from 36% in 1997 to 22% in 2001 among Vermont's 8th through 12th graders. This is a drop of nearly 39% in 4 years. In addition, the Vermont legislature has passed a number of laws and policies to help reduce tobacco use by restricting smoking in the workplace, prohibiting the sale of tobacco products to people under 18, and banning smoking in the common areas of all enclosed indoor places of public access, including restaurants.

IMPLICATIONS

The continued success of Vermont's tobacco control efforts will require programs and policies that address the needs of Vermonters of all ages and all racial, cultural, and ethnic backgrounds. As a result, the program staff at the Vermont Health Department will conduct special outreach training on tobacco control and prevention for members of low-income and minority groups.

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Exemplary State Programs to Prevent Chronic Diseases and Promote Health

State	Pg. No.	Diseases/Conditions Addressed	Risk Factors Addressed	Populations Targeted	CDC Programs Involved*
Alabama	23	Low birth weight, infant death	Tobacco use in pregnancy	Pregnant women	PRAMS
	35	Heart diseases and stroke	Poor nutrition, physical inactivity, tobacco use	Rural African-American women	PRC
Arizona	59	Lung cancer, heart disease	Tobacco use	N/A	Tobacco Control Program
California	3	Arthritis	Physical inactivity	Hispanics	Arthritis Program
	9	Lung cancer	Tobacco use	N/A	Cancer Registries Program
	51	Skin cancer	Sun exposure	Children	PHHS Block Grant
	60	Lung cancer, heart disease	Tobacco use	N/A	Tobacco Control Program
Connecticut	10	Breast cancer, cervical cancer	Lack of screening	Low-income minority women	NBCCEDP
	52	Injuries	Not using seat belts	N/A	PHHS Block Grant
Florida	4	Arthritis	Physical inactivity	Hispanics	Arthritis Program
	24	Sudden infant death syndrome	Infants sleeping on stomachs	Parents of infants	PRAMS
	61	Tobacco-related illness	Tobacco use	Young people	Tobacco Control Program
Georgia	5	Arthritis	Physical inactivity	N/A	Arthritis Program
Hawaii	45	Hypertension, diabetes, cardiovascular diseases, colon cancer, osteoporosis, depression, anxiety	Physical inactivity	N/A	Physical Activity Program
Illinois	11	Breast cancer	Lack of screening	Low-income minority women	NBCCEDP, NPCR
	53	Breast and cervical cancer	Lack of screening	Low-income women	REACH
Kentucky	12	Breast cancer	Lack of screening	Low-income women	NBCCEDP, NPCR

Exemplary State Programs to Prevent Chronic Diseases and Promote Health

State	Pg. No.	Diseases/Conditions Addressed	Risk Factors Addressed	Populations Targeted	CDC Programs Involved*
Maine	27	Tobacco-related illness	Tobacco use	Adolescents	Healthy Youth
	62	Tobacco-related illness	Tobacco use	N/A	Tobacco Control Program
Massachusetts	63	Tobacco-related illness	Tobacco use	N/A	Tobacco Control Program
Missouri	46	Hypertension, heart disease, stroke, chronic diseases	Physical inactivity	Rural populations	PRC
New Jersey	54	Breast and cervical cancer	Lack of screening	Minority women	PHHS Block Grant, NBCCEDP
New York	13	Cancer	N/A	N/A	NPCR
	17	Diabetes and its complications	Poor nutrition, physical inactivity, uncontrolled blood glucose levels, lack of preventive care	People with diabetes	Diabetes Control Program
	36	Heart disease and stroke, high blood pressure	Tobacco use, poor nutrition, and physical inactivity	Workers	Cardiovascular Program
North Carolina	18	Diabetes and its complications	Uncontrolled blood glucose levels, lack of preventive care	African Americans with diabetes	Diabetes Control Program
	55	Heart disease	Lack of screening, poor nutrition, physical inactivity, tobacco use	Low-income women	WISEWOMAN, NBCCEDP
Oregon	56	Lung cancer	Environmental tobacco smoke	Workers	BRFSS
	64	Tobacco-related disease	Tobacco use	N/A	Tobacco Control Program
Rhode Island	28	Obesity, type 2 diabetes	Poor eating habits	School-aged children	Healthy Youth

Exemplary State Programs to Prevent Chronic Diseases and Promote Health

State	Pg. No.	Diseases/Conditions Addressed	Risk Factors Addressed	Populations Targeted	CDC Programs Involved*
South Carolina	37	Heart disease and stroke	Physical inactivity	School-aged children	Cardiovascular Program
	47	Obesity and Chronic Disease	Physical inactivity	School-aged children	Physical Activity Program
South Dakota	29	HIV	Sexual intercourse, number of sex partners, unprotected sex	School-aged American Indians	Healthy Youth
Tennessee	30	HIV	Sexual intercourse, number of sex partners, unprotected sex	Adolescents	Healthy Youth
Texas	31	Childhood obesity	Poor nutrition, physical inactivity	School-aged children	PRC, Diabetes Control Program
Utah	6	Arthritis	Physical inactivity	Women	Arthritis Program
	19	Diabetes and its complications	Lack of preventive care	Diabetics	Diabetes Control Program
Vermont	14	Breast and cervical cancer	Lack of screening	Uninsured women	NBCCEDP
	65	Tobacco-related illness	Tobacco use	N/A	Tobacco Control Program
Washington	20	Diabetes and its complications	Poor nutrition, physical inactivity, uncontrolled blood glucose levels, lack of preventive care	Low-income people with diabetes	National Diabetes Collaborative, Diabetes Control Program
Wisconsin	41	Dental decay	Lack of dental sealants	School-aged children	Oral Health Program

*Program Abbreviations: BRFSS: Behavioral Risk Factor Surveillance System; NBCCEDP: National Breast and Cervical Cancer Early Detection Program; NPCR: National Program of Cancer Registries; PHHS Block Grant : Preventive Health and Health Services Block Grant); PRAMS: Pregnancy Risk Assessment Monitoring System; PRC: Prevention Research Centers; REACH: Racial and Ethnic Approaches to Community Health